

(19) World Intellectual Property Organization
International Bureau



06 DEC 2004

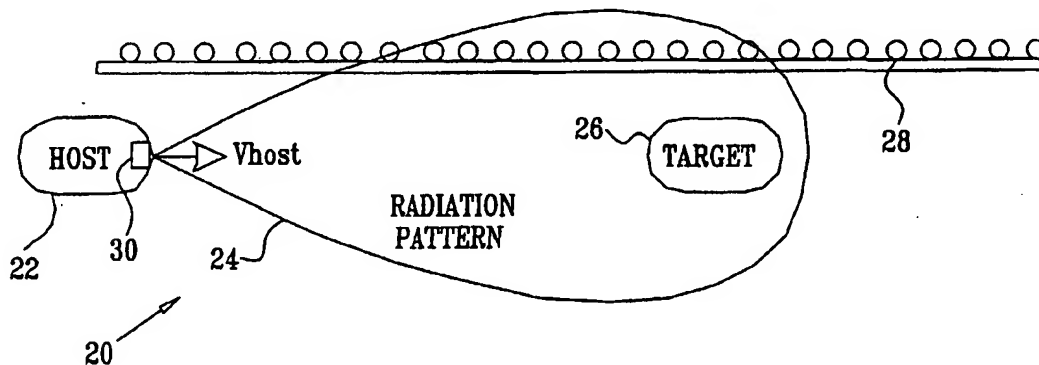
(43) International Publication Date
18 December 2003 (18.12.2003)

PCT

(10) International Publication Number
WO 03/104833 A2

- (51) International Patent Classification⁷: **G01S** 34407 Haifa (IL). SHMUEL, Amir [IL/IL]; 78 HaGalil Street, 36001 Nofit (IL).
- (21) International Application Number: PCT/IL03/00472
- (22) International Filing Date: 4 June 2003 (04.06.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
60/386,893 6 June 2002 (06.06.2002) US
- (71) Applicant (for all designated States except US): **ROAD-EYE FLR GENERAL PARTNERSHIP [IL/IL]**; 12 Hanapach Street, P.O. Box 6362, 20101 Karmiel (IL).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **HARTZSTEIN, Claudio [FR/IL]**; 30/1 Hahayl Street, 43317 Ra'anana (IL). **LEVY, Aharon [IL/IL]**; 13 Gush Halav Street, 27072 Kiryat Bialik (IL). **ADAR, Daniel [IL/IL]**; 82 Baz Street, 21721 Karmiel (IL). **ANDERMAN, Hanan [IL/IL]**; 14 Keshet Street, 48611 Rosh Haayin (IL). **SHAPIRA, Gil [IL/IL]**; 8 Netzah Yisrael Street, 64352 Tel Aviv (IL). **FISHLER, Ehud [IL/IL]**; 4/D Bosmat Street, 73142 Shoham (IL). **BITTON, Ilan [IL/IL]**; 4 Noga Street,
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:
— without international search report and to be republished upon receipt of that report
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: FORWARD-LOOKING RADAR SYSTEM



(57) Abstract: An assembly for receiving and transmitting millimeter (mm) waves, including at least one mm wave reflector (84, 86, 88) and at least one mm transmission wave feed (72) configured in a transmission feed location (34) within the at least one mm wave reflector. The assembly also includes a plurality of receiving mm wave feeds (72) configured in respective receiving feed locations (36) within the at least one mm wave reflector; and a radio frequency (RF) module (38). The RF module is coupled to the at least one mm transmission wave feed and to the plurality of the receiving mm wave feeds, so as to drive the at least one mm transmission wave feed to transmit outgoing mm waves and to simultaneously receive incoming mm waves from all of the plurality of the receiving mm wave feeds.